

# Pacific Pests, Pathogens and Weeds - Online edition

## Yam lesion nematode (008)

### Summary

- Worldwide distribution. On yam, banana, and many other crops and weeds. Note, the burrowing nematode, *Radopholus similis*, causes a similar disease on banana (**see Fact Sheet no. 257**). An important disease.
- Eggs are laid in roots or nearby in soil; young larvae, and adults, tunnel through roots and tubers using a hollow spear to suck cell contents. Roots are killed.
- Spread is in ground water, and infested tubers and setts used for planting.
- Cultural control: non-host break crop (e.g., cassava, sweetpotato, ground legumes – *Mucuna* or *Pueraria*); discard setts with rot, or cut out with knives wiped in bleach; alternatively, treat yam setts in hot water (51°C for 10 minutes) or, for banana setts, (53°C for 20 mins.); avoid storing tubers with rots, and if seen remove; 3-year crop rotation.
- Chemical control: none recommended.

### Common Name

Dry rot of yam, brown dry rot, banana root nematode, toppling of banana

### Scientific Name

*Pratylenchus coffeae*



Photo 1. *Pratylenchus coffeae* in yam causes a shallow rot beneath the skin; the importance of the rot is not only the loss of flesh for eating, it is also the loss of planting material. Yams infected with dry rot do not sprout or, if they do, the cutting will be infested with nematodes which will attack the roots when the setts are planted.



Photo 4. *Pratylenchus coffeae* inside a root.



Photo 5. Banana roots with purple/black discoloration caused by *Pratylenchus coffeae*. Infested roots rot and plants are weak and yields are small.



Photo 6. "Toppling" is a common symptom on banana when roots are attacked by *Pratylenchus coffeae*. Note this banana has fallen over before the fruits have matured; a sign of nematode attack. A similar symptom occurs when bananas are infected by the nematode *Radopholus similis*.



Photo 2. *Pratylenchus coffeae* in yam causes a shallow rot beneath the skin.

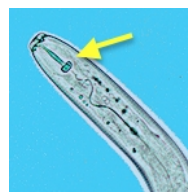


Photo 3. The head of *Pratylenchus* sp. showing the hollow spear or stylet (arrow), which is used to puncture cells in order to move through the roots, as well as to feed on their contents.

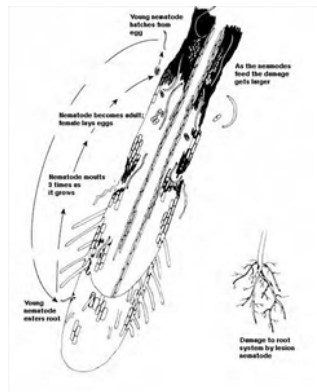


Diagram. Life cycle of *Pratylenchus coffeae*.

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Information (and Diagram) from Davis EL, MacGuidwin AE (2005) Lesion nematode disease. *The Plant Health Instructor*. DOI: 10.1094/PHI-I-2000-1030-02; and from Hauser S, Coyne D (2010) A hot bath cleans all: Boiling water treatment of banana and plantain. Technical Innovation Brief. No. 8. (<https://www.ctc-n.org/sites/www.ctc-n.org/files/resources/Aea6bfcd-2658-4dac-bf31-03861661b3dc.pdf>). Photo 1 V Vanstone *Pratylenchus penetrans*: a horticulturally significant root lesion nematode. Department of Agriculture and Food, Government of Western Australia. Photo 4 John Bridge, CABI, UK.

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